SPECIFICATION AMENDMENTS

Please amend paragraph 23 as follows:

Once activated in response to a dangerous condition, reaction subsystem 24 is configured to engage operative structure 12 quickly to prevent serious injury to the user. It will be appreciated that the particular action to be taken by reaction subsystem 24 will vary depending on the type of machine 10 and/or the dangerous condition that is detected. For example, reaction subsystem 24 may be configured to do one or more of the following: stop the movement of cutting tool 14, disconnect motor assembly 16 from power source 20, place a barrier between the cutting tool and the user, or retract the cutting tool from its operating position, etc. The reaction subsystem may be configured to take a combination of steps to protect the user from serious injury. Placement of a barrier between the cutting tool and teeth is described in more detail below. Retraction of the cutting tool from its operating position is described in more detail in U.S. Provisional Patent Application Serial No. 60/225,089, filed August 14, 2000, entitled "Retraction System For Use In Power Equipment," and U.S. Patent Application Serial No. [[___]] 09/929,242, filed August 13, 2001, entitled "Retraction System For Use In Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend paragraphs 25-27 as follows:

It will be appreciated by those of skill in the art that the exemplary embodiment depicted in Fig. 1 and described above may be implemented in a variety of ways depending on the type and configuration of operative structure 12. Turning attention to Fig. 2, one example of the many possible implementations of safety system 18 is shown. System 18 is configured to engage an operative structure having a cutting tool in the form of a circular blade 40 mounted on a rotating shaft or arbor 42. Blade 40 includes a plurality of cutting teeth (not shown) disposed around the outer edge of the blade. As described in more detail below, braking mechanism 28 is adapted to engage the teeth of blade 40 and stop the rotation of the blade. U.S. Provisional Patent Application Serial No. 60/225,210, filed August 14, 2000, entitled "Translation Stop For Use In Power Equipment," and U.S. Patent Application Serial No. [[___]] 09/929,425, filed August 13, 2001, entitled "Translation Stop For Use In Power Equipment," the disclosures of which are herein incorporated by reference, describe other systems for stopping the movement of the cutting tool. U.S. Provisional Patent Application Serial No. 60/225,058, filed August 14, 2000, entitled "Table Saw With Improved Safety System," U.S. Patent Application Serial No. [[____]] 09/929,235, filed August 13, 2001, entitled "Table Saw With Improved Safety System," U.S. Provisional Patent Application Serial No. 60/225,057, filed August 14, 2000, entitled "Miter Saw With

Improved Safety System," and U.S. Patent Application Serial No. 09/929,238, filed August 13, 2001, entitled "Miter Saw With Improved Safety System," the disclosures of which are herein incorporated by reference, describe safety system 18 in the context of particular types of machines 10.

In the exemplary implementation, detection subsystem 22 is adapted to detect the dangerous condition of the user coming into contact with blade 40. The detection subsystem includes a sensor assembly, such as contact detection plates 44 and 46, capacitively coupled to blade 40 to detect any contact between the user's body and the blade. Typically, the blade, or some larger portion of cutting tool 14 is electrically isolated from the remainder of machine 10. Alternatively, detection subsystem 22 may include a different sensor assembly configured to detect contact in other ways, such as optically, resistively, etc. In any event, the detection subsystem is adapted to transmit a signal to control subsystem 26 when contact between the user and the blade is detected. Various exemplary embodiments and implementations of detection subsystem 22 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,200, filed August 14, 2000, entitled "Contact Detection System For Power Equipment," U.S. Patent Application Serial No. 09/929,426, filed August 13, 2001, entitled "Detection System For Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,211, filed August 14,

2000, entitled "Apparatus And Method For Detecting Dangerous Conditions In Power Equipment," and U.S. Patent Application Serial No. [[ ]] 09/929,221, filed August 13, 2001, entitled "Apparatus And Method For Detecting Dangerous Conditions In Power Equipment," the disclosures of which are herein incorporated by reference.

Control subsystem 26 includes one or more instruments 48 that are operable by a user to control the motion of blade 40. Instruments 48 may include start/stop switches, speed controls, direction controls, etc. Control subsystem 26 also includes a logic controller 50 connected to receive the user's inputs via instruments 48. Logic controller 50 is also connected to receive a contact detection signal from detection subsystem 22. Further, the logic controller may be configured to receive inputs from other sources (not shown) such as blade motion sensors, workpiece sensors, etc. In any event, the logic controller is configured to control operative structure 12 in response to the user's inputs through instruments 48. However, upon receipt of a contact detection signal from detection subsystem 22, the logic controller overrides the control inputs from the user and activates reaction subsystem 24 to stop the motion of the blade. Various exemplary embodiments and implementations of control subsystem 26 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,059, filed August 14, 2000, entitled "Logic Control For Fast-Acting Safety System," U.S. Patent Application Serial No. [[ ]] 09/929,237, filed August 13, 2001,

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entitled "Logic Control For Fast-Acting Safety System," U.S. Provisional Patent Application Serial No. 60/225,094, filed August 14, 2000, entitled "Motion Detecting System For Use In A Safety System For Power Equipment," and U.S. Patent Application Serial No. [[ ]] 09/929,234, filed August 13, 2001, entitled "Motion Detecting System For Use In A Safety System For Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend paragraphs 30-31 as follows:

Pawl 60 is released from its unactuated, or cocked, position to engage blade 40 by a release mechanism in the form of a firing subsystem 76. The firing subsystem is coupled to contact mount 72, and is configured to melt fusible member 70 by passing a surge of electrical current through the fusible member. Firing subsystem 76 is coupled to logic controller 50 and activated by a signal from the logic controller. When the logic controller receives a contact detection signal from detection subsystem 22, the logic controller sends an activation signal to firing subsystem 76, which melts fusible member 70, thereby releasing the pawl to stop the blade. Various exemplary embodiments and implementations of reaction subsystem 24 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,056, filed August 14, 2000, entitled "Firing Subsystem For Use In A Fast-Acting Safety System," U.S. Patent Application Serial No. [[ ]]

09/929,240, filed August 13, 2001, entitled "Firing Subsystem For Use In A Fast-Acting Safety System." U.S. Provisional Patent Application Serial No. 60/225,170, filed August 14, 2000, entitled "Spring-Biased Brake Mechanism for Power Equipment," U.S. Patent Application Serial No. 09/929,227, filed August 13, 2001, entitled "Spring-Biased Brake Mechanism For Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,169, filed August 14, 2000, entitled "Brake Mechanism For Power Equipment," and U.S. Patent Application Serial No. [[_____]] 09/929,241, filed August 13, 2001, entitled "Brake Mechanism For Power Equipment," the disclosures of which are herein incorporated by reference.

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It will be appreciated that activation of the brake mechanism will require the replacement of one or more portions of safety system 18. For example, pawl 60 and fusible member 70 typically must be replaced before the safety system is ready to be used again. Thus, it may be desirable to construct one or more portions of safety system 18 in a cartridge that can be easily replaced. For example, in the exemplary implementation depicted in Fig. 2, safety system 18 includes a replaceable cartridge 80 having a housing 82. Pawl 60, spring 66, fusible member 70 and contact mount 72 are all mounted within housing 82. Alternatively, other portions of safety system 18 may be mounted within the housing. In any event, after the reaction system has been activated, the safety system can be reset by replacing cartridge

80. The portions of safety system 18 not mounted within the cartridge may be replaced separately or reused as appropriate. Various exemplary embodiments and implementations of a safety system using a replaceable cartridge are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,201, filed August 14, 2000, entitled "Replaceable Brake Mechanism For Power Equipment," U.S. Patent Application Serial No. [[_____]] 09/929,236, filed August 13, 2001, entitled "Replaceable Brake Mechanism For Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,212, filed August 14, 2000, entitled "Brake Positioning System," and U.S. Patent Application Serial No.[[_____]] 09/929,244, filed August 13, 2001, entitled "Brake Positioning System," the disclosures of which are herein incorporated by reference.

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Please amend paragraph 35 as follows:

The cutterhead is usually constructed of metal, such as steel, and typically includes three knife blades 1212 mounted to extend above the surface of the cutterhead. It will be appreciated that fewer or more knife blades may be used and that the utility of safety system 18 is not limited by the number of blades on cutterhead 1202. One or more electrically non-conductive bushings 1214 are placed between the cutterhead and arbor to insulate the cutterhead and blades from frame 1206. Charge plates 44 and 46 may be placed adjacent the cutterhead

a4

to couple the signal generated by detection subsystem 22 across the cutterhead. In Fig. 3. the charge plates (shown in dashed lines) are mounted adjacent one flat end of the cutterhead. Alternatively, the arbor may be insulated from the frame and the charge plates may be positioned around the arbor as described above in U.S. Provisional Patent Application Serial No. 60/225,211, filed August 14, 2000, entitled "Apparatus And Method For Detecting Dangerous Conditions In Powor Equipment," and U.S. Patent Application Serial No. [[____]] 09/929,221, filed August 13, 2001, entitled "Apparatus And Method For Detecting Dangerous Conditions In Power Equipment," which are incorporated herein by reference.

Please amend paragraph 40 as follows:

Figs. 4-6 illustrate an alternative blade covering system for a machine using a circular blade. The reaction system of Fig. 4 includes a band 1230 of flexible material that is used to wrap around the teeth of blade 40. Band 1230 includes a loop 1232 formed at the leading end. The loop is hooked around a pair of torsion springs 1234 and held in place by a guide structure (not shown) secured to the frame of the saw. The springs are held in a cocked position by a fast-acting release system (not shown), such as described above and in U.S. Provisional Patent Application Serial No. 60/225,056, filed August 14, 2000, entitled "Firing Subsystem For Use In A Fast-Acting Safety System," U.S.

Patent Application Serial No. [[_____]] 09/929,240, filed August 13, 2001, entitled "Firing Subsystem For Use In A Fast-Acting Safety System," U.S. Provisional Patent Application Serial No. 60/225,170, filed August 14, 2000, entitled "Spring-Biased Brake Mechanism For Power Equipment," and U.S. Patent Application Serial No. [[__]] 09/929,227, filed August 13, 2001, entitled "Spring-Biased Brake Mechanism For Power Equipment," which are incorporated herein by reference. When the springs are released, they pull loop 1232 down into a gullet 1236 of blade 40. The gullet captures the leading edge of the loop and pulls the loop off of the springs and drags the band forward as illustrated by the dashed lines in Fig. 4. The width of the loop forms a shock absorbing structure to absorb some of the impact of the gullet catching the loop. It is also possible to provide a compressible material at the leading end of the loop as a shock absorbing system to reduce impact loading.

Please amend paragraph 42 as follows:

The leading end of the band is preferably positioned as close as possible to the location where the blade emerges from the guard or housing on the saw. This insures that the band will reach the location of the user as soon as possible to minimize injury. The motor of the saw will preferably be disengaged as soon as the reaction system is actuated. In addition, the reaction system of Figs. 4-6 is also preferably used in connection with translation stopping systems such as described in U.S. Provisional Patent Application Serial No. 60/225,210, filed August 14, 2000, entitled "Translation Stop For Use In Power Equipment," and U.S. Patent Application Serial No. [[ ]] 09/929,425, filed August 13, 2001, entitled "Translation Stop For Use In Power Equipment," or retraction systems such as shown in U.S. Provisional Patent Application Serial No. 60/225,089, filed August 14, 2000, entitled "Retraction System For Use In Power Equipment," and U.S. Patent Application Serial No. [[ ]] 09/929,242, filed August 13, 2001, entitled "Retraction System For Use In Power Equipment," which are incorporated herein by reference, to further minimize injury.